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ABSTRACTS

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KERINICITY OF DICTROCOELIUM DENDRITICUM EGG ELIMINATION IN NATURALLY INFECTED SHEEP TREATED WITH ALBENDAZOLE IN JANUARY

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To determine the ideal moment for anthelmintic treatment to be administered against D. dendriticum, a study was done on 5 groups of 31-39 naturally infected sheep that received doses of 20 mg/Kg albendazole once or twice at different times of the year. The 600-strong flock grazed in the lower Bernesga basin (León, NW Spain). Faeces samples were taken in the morning from the animals' rectum, every 40-45 days from November, 1993, to December, 1994. Three grams of each sample were processed by sedimentation and McMaster chambers were used for the egg counts. Here only the results for the group treated in January are included. The highest percentages of animals eliminating D. dendriticum eggs were in November, 1993 (100%) and January, 1994 (82.76%). In February this % decreased (48.15%) and remained low until October (60%) and December, 1994 (80%). The average of eggs per gram (epg) from the infected animals increased from November, 1993 (108.27 epg ± 69.80 SD) to January (137.43 ± 74.40), fell in February (61.48 ± 38.10) keeping low until December, 1994 (174.93 ± 96.98). In February, the "Extension Effect" and "Intensity Effect" were calculated to assess anthelmintic efficacy to reduce the number of sheep eliminating eggs (36.96%) and the number of epg eliminated (76.81%), respectively. Reinfection does not occur from November to March because the ants remain in their nest.

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ECTOPARASITES ON SHEEP IN ICELAND

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Four species of obligatory ectoparasites of sheep have been found in Iceland. These are the sheep scab mite (Psoroptes ovis), the sheep mange mite (Choriopotes ovis), the sheep biting louse (Bovicola (Damalina) ovis) and the sheep ked (Melophagus ovinus).

Little is known about the history of these ectoparasites in Iceland. Some of them, if not all, may have been on sheep brought to the island by the first settlers in the eighth or ninth century. The earliest sources that indicate ectoparasites on sheep are the descriptions of a highly detrimental plague of sheep which started in 1762 and spread widely over the country. It was possibly caused by sheep scab mites brought to the country with imported sheep. From the same sources it seems evident that sheep biting lice and sheep keds were already present in the country. In 1856 a sheep scab epidemic began and it seems certain that it was caused by sheep scab mites, probably imported with foreign sheep. In 1897 the sheep mange mite was distinguished from the sheep scab mite for the first time in Iceland.

In earlier times ectoparasites, mainly the sheep scab mite, were fought by dipping, staying out and with restrictions on sheep transport. Since 1914 and until recently, compulsory and in most cases, yearly dipping has been used. In addition, for the last few decades Iceland has been divided into an increasing number of sheep quarantine areas, their number now being approx. 40. Considerable restrictions on transport of sheep exist between these areas which without doubt has helped in the fight against ectoparasites.

Studies of samples sent to the Keldur Institute during the last 20 years, from all over the country, show that in spite of a long and hard battle against ectoparasites of sheep, sheep mange mites are widely distributed in the country, sheep scab mites are still found in at least four quarantine areas in the northwestern part and sheep biting lice have been found recently in one area in the eastern part. The sheep ked on the other hand has probably been eradicated.